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ORIGINAL COMMUNICATIONS.

THE MANAGEMENT OF HEAD-LAST LABORS.

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LABORS in which the head is born last are the bugbears of the physician; and well they may be, for Atropos, and not Lucina, presides over them. The tediousness of the labor, the probable ascent and possible fracture of the arms, the impaction of the head, the peril in which the child's life is placed, and the very disagreeable chance of breaking the neck, or, indeed, of leaving the head behind, present in their aggregate a very unwelcome group of complications. The chief dread of the physician is, however, the death of the child, and the length of the labor.

The causes of fœtal death in this form of labor are manifold. But, what is worse, they accumulate in proportion as labor advances, and in the end act in concert. The first, in regard to time, comes from the irregularity of the presenting part, and consists in the escape of all the liquor amnii as soon as the bag of water breaks. The next is the delay attending the expulsive stage. The other causes lie in ambush until the breech is born, and then combine with the former in making a deadly assault upon the child's life. These include the compression of the cord and placenta, the partial detachment of the latter, the embarrassment to the utero-placental circulation from the lessened size of the womb, and, finally, what is not uncommon, the long pauses between the pains. But there is yet another danger, not so generally known, which is, perhaps, the most common cause of death before delivery, and of feeble vitality or of death after delivery. When the placental circulation begins to flag, the child, unless at once delivered, keenly craves oxygen. Urged on by this air-hunger, it makes premature respiratory movements. But, since air cannot gain access to its nostrils, the child draws into its lungs the bloody and mucous discharges of the maternal passages. These foreign bodies so plug up the bronchia that the child is very liable to die either at once, from asphyxia, or within a few days after birth, from lobular pneumonia,—viz., atelectasis pulmonum.

From these causes the fœtal mortality in head-last labors is large; so large as to be an opprobrium to the profession. From the statistics of fourteen of the most skilful of British obstetricians, Churchill shows that they lost very nearly one child in every three. In ordinary breech-cases Hodge rates the average of still-births at thirty-three per cent. According to MM. Capuron and Cazeaux, in the more difficult cases from sixty-six to seventy-five per cent. perish. Said the late George T. Elliot (*Obstetric Clinic*, p. 347), "I always regret to meet a pelvic presentation in my practice, for fear that the child may not be born alive." In more or less vivid language, the testimony of this very distinguished obstetrician is sustained by all the authors of our text-books. Since, now, these statistics represent the experience of the most skilled specialists, of eminent teachers, of men who, by a large private and hospital practice, reached an unrivalled dexterity in their branch of the profession, it stands to reason that in the practice of the profession at large the average number of head-last still-births must be very much higher. For this mortality fifty per cent. is, I think, a very low estimate. But, mind, in the above statistics no account whatever has been taken of post-partum deaths from enfeebled vitality, or atelectasis pulmonum, so common in the infant after this kind of labor. This loss in itself is so large that it must not be overlooked. Since, therefore, pelvic presentations occur about once in every fifty cases of labor, it follows that in every thousand labors a practitioner attends he will, from this cause alone, meet with at least ten still-births and several deaths within a few days after birth.

In view of these facts, the objects of this paper will be to search out the best means for shortening the duration of this kind of labor, for preventing the death of the child, and, as a conjoint consequence, for giving the physician a greater confidence at the bedside of his patient. These ends can, in my opinion, be best attained by classifying pelvic presentations under the head of preternatural labors. For, since a name misleads, if we include them under natural labors, as is customary, we shall be less likely to render the often-needed help.

For shortening the first stage of head-last labors I have found nothing equal to the hydrate of chloral. Given every half-hour in doses of from ten to fifteen grains it promptly relaxes the most rigid cervix. In head-first labors the early rupture of the membranes usually hastens on the process of dilatation; but in head-last labors this means should never be employed. For obvious reasons it is of vital importance to keep the membranes intact until the os is fully and wholly open. If after the completion of the first stage of labor there is much delay in the descent of the breech, no better directions can be observed than those given by Barnes. The chest, shoulders, arms, legs, and sometimes the head of the child, all act conjointly in forming the base of a wedge, whose apex is represented by the breech. The apex engages, but the base, being more bulky than the brim or the lower segment of the womb, forbids further descent. By bringing down one leg, and preferably the one nearer to the pubic arch, this wedge is broken up, and the further progress of the labor placed under the control of the physician. He should, however, make no further traction on this leg unless it is loudly called for, and then only during a pain, lest the arms should become extended. From a pretty large experience, I can confidently recommend

this operation in all cases attended with delay. Nor should it be for a moment postponed after the heart-beats of the child become feeble. When the breech has descended so low as to preclude a resort to this operation, then, of course, the canonical methods of traction on the groins may be employed. But I really cannot understand why the gentle use of the forceps on the pelvis of the child is deemed more hurtful than that of the blunt hook in its groin. The pain that delivers the breech should be supplemented by traction or by supra-pubic propulsion, so that the arms and shoulders may also, if possible, be expelled at the same time. A loop of the cord must then be drawn down, so that its spirally-coiled vessels may not be constringed by being straightened out.

The breech being born, the uterine and abdominal muscles are in a great measure shorn of their expulsive power, and that at a time when most needed. The life of the child being now imperilled, its rescue is the next important consideration. From the mode of its death,—viz., from asphyxia,—it is plain that a prompt delivery is the only life-saving factor. Delay here means death. One of five minutes' time may be one minute too much. Hence there must be no waiting for the manifestation of such danger-signals as feeble pulsations in the cord, or convulsive jerks of the limbs; no loitering for a pain to begin, for the arms to come down, or for the head to become moulded. The proverb *quieta non movere* has here no application whatever. The physician should urge the woman to bear down; but if these efforts prove unavailing, he must hasten to bring down the arms, and at once proceed to the forcible extraction of the child. I say this advisedly, for, although our text-books teach otherwise, I am sure that in nine-tenths of breech-labors it is inaction and not traction that kills the child. Fettered by sentimental conservatism, or by an allegiance to traditional technics, the physician folds his arms, when, had he as many hands as a Hindoo deity, they should all be nimbly at work. Never shall I cease to regret my first breech-case of labor, in which, fearful of breaking the canons of obstetrics, and the child's neck as well, I let the only child its mother ever bore die before my eyes. So needful to the welfare of the child do I deem its speedy delivery to be, that were an arm so impacted as not to be safely released without a probably fatal delay, I should not hesitate to break it, or, at least, to run the risk of breaking it. Nor do I stand alone in advocating this heroic treatment. It is upheld by such excellent authorities as Braun* and Schroeder.† In such emergencies, however, as M'Clintock‡ and Bouchut§ have pointed out, and as I can bear witness, it is usually the clavicle that snaps, and not the humerus. In those rarer cases in which the humerus is broken, the fracture is often partial,—viz., of the green-stick kind. By the aid of thin pasteboard splints and of straps of adhesive plaster, such injuries heal so readily and with so little deformity that they should weigh as trifles when life is at stake. In cases of pelves known to be ample, I can conceive of its being perfectly justifiable to follow Giffard's‖ and Froriep's¶ plan of dragging the head through with the impacted arm extended above, rather than that of losing golden minutes in liberating it.

Supposing, then, that the trunk and arms are born, and the head, gripped by the brim, alone remains for extraction, is the forceps to be resorted to? I answer, "No;" for, although this instrument is handy enough when the head is at or near the outlet, in high operations its application is attended with so many difficulties that too much precious time is lost. The problem being to get the child's head out as soon as possible, the only factors for its solution are limited to supra-pubic pressure upon the head, and to traction on the body. But the former is not by itself trustworthy; while, as to the latter, the great majority of physicians labor under the idea that the neck of an infant cannot bear much traction. "Would you be willing," they triumphantly ask, "to lift up by its head an infant just dressed and lying in the nurse's lap?" "Would you," it may be retorted, "be willing to make as much traction upon the lower jaw of a newborn child as you have just made in flexing its head? or would you compress its head with the forceps as viciously as you did a few minutes ago?" For obvious reasons, I object very decidedly to the nursery game of lifting a child by its ears to make it "see London." But, were one of my children drowning, I should not hesitate to grapple for its naked body with a boat-hook, or to pull it out of the water by the hair, by the ear, by the nose, or by any prehensible portion of its body, regardless of any local injury it might sustain. Nay, were its limbs, like those of canny James Lambert (Charles Reade's aquatic hero), weighted down by the death-grips of some twenty other drowning persons, I should run the risk of breaking its neck in my frantic efforts to raise its chin above water-level. Now, a child presenting by the breech is in precisely this plight. It is under water, weighted down by the grip of the bony canal; it is drowning; and to any one drowning help must be sped,—help at all hazards.

The ancient Romans recognized this danger, and, as I believe, applied the only remedy for it. According to Pliny (*Historia Naturalis*, lib. vii. cap. viii.), they called all persons born in this manner, Agrippas. This name still puzzles etymologists; Aulus Gellius and Pliny himself derive it from *ægre partus*,—viz., *born with difficulty*,—but this is stoutly contested by others. With diffidence, I would suggest it to be either a derivative from *arripio*,—to snatch away; to take by force,—or a compound from the Greek word *Ἱρόψ*,—a griffin, or fabled winged monster with four sets of talons,—from which our own word *grip* is derived. Thus interpreted, the name Agrippa is descriptive of the mode

* Philadelphia Medical Times, February 20, 1875, p. 325.
† Manual of Midwifery, Am. ed., 1873, p. 184.
‡ London Obstetrical Transactions, vol. iv. p. 184.
§ Maladies des Nouveau-nés, Paris, 1862, p. 854. See, also, Irish Hospital Gazette, January 1, 1875, p. 2.

‖ Cases in Midwifery, Case LXVIII.
¶ Journal Général, vol. xxiii. p. 460.

of birth, and means one snatched away, or taken away by force. But such a mode of delivery necessarily hinges on the tensile strength of an infant's neck, and this will, therefore, next engage our attention.

The adult neck is strong enough to bear the immense strain of the gallows-drop without sustaining a luxation of the atlas on the axis. Criminals executed in this manner usually die from suffocation. What holds good with adults holds good relatively with children; and it is wonderful what a strain their necks will safely bear. From experiments made adversely to version in narrow pelves, and, therefore, the less likely to overrate the tensile strength of the fœtal neck, Matthews Duncan concludes (*British Medical Journal*, December 19, 1874, p. 763) that the neck of a dead child can, at term, sustain the average weight of one hundred and five pounds before the spinal column gives way, and one of one hundred and twenty pounds before the body parts from the head. These averages are, I think, under-estimated rather than over-estimated, for out of the four fœtuses experimented upon, two of them weighed under six pounds; and the other two, weighing, respectively, seven pounds and seven ounces and eight pounds and fifteen ounces, sustained each weights of one hundred and forty-one pounds and one hundred and thirty-six pounds before decapitation took place.

In a difficult breech-case to which Joulin was called in long after the child was dead, he delivered the woman, after employing for twenty minutes a steady traction-force of one hundred and two pounds, made by a noose thrown around the neck of the child (Traité complet d'Accouchements, p. 1062). In conducting a series of experiments to determine the value of version in narrow pelves, he delivered with unbroken necks (p. 1050) the heads of three dead infants after putting on their feet a steady force, respectively, of one hundred and twenty-five, one hundred and forty-five, and one hundred and forty-eight pounds. But it must not be forgotten that these experiments were made upon dead children, and that the tensile strength of a living child's neck is presumptively greater. Again, Joulin also proved with his dynamometer that, without any purchase for the feet, and by pulling merely with the muscles of the arms, a robust man can exert on the forceps a maximum weight of one hundred and thirteen pounds. From analogous experiments made by Delore, a force of only one hundred pounds was reached (p. 1065).

Now, with the woman lying on her back and myself standing in a stooping posture before her, I have repeatedly delivered living and lusty children by putting on their necks all of my weight possible in that position. By grasping a cane in an analogous manner, and forcing it down on Fairbanks's scales, I find that one can for thirty seconds exert a steady downward pressure of about ten pounds more than half the weight of one's body. That is to say, I, who weigh one hundred and ninety pounds, can, for a very short time, exert a steady power of one hundred and five pounds. By throwing my weight suddenly upon the cane in quick jerks, I find that I can tip the beam at one hundred and thirty pounds; and this great weight I certainly have on several occasions thrown on infants' necks. Yet I can confidently say that, notwithstanding this severe strain upon the spinal column, I have broken it but once, and have never failed to save the child whenever its birth was completed soon enough. Should much disproportion exist between the size of the head and the capacity of the brim, it is emphatically a case of "neck or nothing;" and the operator must not shrink from promptly using very great force,—a force, indeed, only just short of detruncation. But I do not believe it possible for a physician even to break the neck of a mature child, much less to behead it, if he applies a steady traction-force in the manner above described,—viz., by pushing the neck and body of the child backward and downward, just as he makes downward pressure on the lock of the forceps. Not even when the infant is immature should the efforts of the physician be hampered by the fear of sudden decollation. For the spinal column always yields before the skin and muscles part, and the consequent jerk and the immediate elongation of the neck will give timely warning when to use less force, or, the child being now dead, to end the labor by craniotomy or cephalotripsy. Far better is it, in these emergencies, to kill in attempting to save than to kill by cowardly inaction.

I once saw the strength of the child's neck put to a crucial test, and the result amazed me. I frankly confess that had I not been an eye-witness I should have been a doubter. It was a case of a primipara with a flat pelvis and a large but putrid fœtus. After craniotomy had been performed, a further obstruction to delivery lay in the bloated chest and belly. Before this second complication was recognized, each one of the four physicians present, including myself, took his turn at the forceps. From a natural rivalry, the traction thus necessarily made upon the neck of the fœtus by three of us in succession was no child's play. But that made by the fourth gentleman, a distinguished member of this Society, exhibited so much power and originality that I shall here describe it. He turned the woman over on her side, brought her hips to the edge of the bed, and applied Hodge's forceps. He next carefully tucked a sheet around the lock of the instrument, removed his shoes, sat in a chair, and placed one foot across the perineum, the other across the vulva. He then grasped the handles, straightened out his body, and pulled with all his might and main, making every muscle in his body quiver with the effort. Yet, in spite of the enormous strain brought to bear upon the neck of the child, it was simply lengthened out, but not broken. The cranial stump was brought down to the outlet, but it literally sprang back at every intermission of the traction. This behavior of the head, or rather of what was left of it, was in fact the first clue that led to the discovery of the obstructive size of the child's body.

Although these facts show the wonderful tensile strength of the fœtal neck, yet, in order to extract the head with a minimum of traction-force, it is of

great importance to exert the power to the best mechanical advantage, and to grade it to the resistance. This brings me to the mode of making traction; but in order to understand the subject fully it will be first necessary to study the configuration of the fœtal head, and the mechanism of its extraction. In so far as breech-labors are concerned, the fœtal head is made up of the frustums of two cones meeting in one common base. One cone is that portion of the head behind the biparietal circumference; the other consists of that portion in front of the same plane. I shall distinguish them by the names of the "fore cone" and the "hind cone." Looking from below upwards,—viz., from the base to the vault,—the head is also wedge-shaped. This I shall call the "wedge." Now, it has been found over and over again, except in those rare cases of uniformly contracted pelves, that, when an infant is pulled through the brim by the feet, the shorter diameter of the fore cone—viz., the bitemporal diameter—tends to pass directly between the sacral promontory and the pubic symphysis, and the hind cone, together with the large biparietal diameter,—viz., the base common to both cones,—to pass to one or the other side of these two osseous points. The shorter the conjugate diameter the more inflexible is this law. The head thus makes its first movement of descent in an unflexed condition, but there is usually plenty of room in the bisiliac diameter for the occipito-frontal diameter to pass. Again, the distance measured from the chin to the nipped points of the head—viz., the ends of the bitemporal diameter—being less than the distance from the occipital protuberance to the same points, the chin can hardly ever catch over the iliac edges of the brim. Theoretically, the extension of the head by the arrest of the chin over any point of the brim is a possible accident, but practically its occurrence is so rare that it may be left out of consideration. Mauriceau saw but one case; in many thousand labors Madame Lachapelle did not meet with one; nor did Velpeau, who, however, notes one occurring in the practice of Leroux, and another in that of Eckardt. Joulin states (p. 559) that he not only never met with this complication, but that he in vain repeatedly tried to bring it about by forcing the back of the child into the hollow of the sacrum. The cause of this almost invariable adjustment of the occipito-frontal diameter to the transverse diameter of the pelvis is the round and hard surface of the occiput, which glides off to one side of the sloping promontory. The head, therefore, passes the brim in the transverse position and in an unflexed condition. But when it is brought into relation with new pelvic diameters, the greater friction of the broader and harder surface of the hind cone brings about the movements of flexion and rotation.

Granting these premises, it follows that the occipital protuberance is far more likely than the chin to hook over the edge of the brim, and that flexion is an undesirable movement while the head is passing through the conjugate. The rule, therefore, to make flexion at this stage of labor, by passing two fingers into the mouth or on each side of the nose, is not only a piece of meddlesome midwifery, but it entails the loss of much traction-power, and is a sheer waste of very precious time.

According as the pelvis is of average size or is narrowed in its conjugate diameter, I adopt two modes of extracting the wedge-shaped head; but the one that I shall first describe is the one that I invariably first employ. The woman may retain the lateral position, but, for reasons to be hereafter given, I much prefer her to lie on her back, with her hips brought to the edge of the bed. In a brim narrowed in its conjugate, the promontory is usually sharp and projecting. The sacral side of the after-coming head tends, therefore, to be bent in by this osseous point and to become fixed by it. Hence the extrication of the head as a whole can take place only when its pubic side revolves around the promontory and glides down over the smooth under surface of the pubic symphysis. Bearing this fact in mind, it is important that the sacral side of the head should become fixed at a point as high up as possible,—viz., as near to its vault as possible. To gain this end, the physician, after grasping the nape of the neck with one hand, and the ankles with the other, should make his first movement of traction in the axis of the outlet, for then the pubic side of the head will be tilted away from the inlet, while the sacral side will proportionately descend over the edge of the promontory, and affront the brim. This canting of the head can be very materially aided by an intelligent assistant, who will make very firm backward and downward pressure with both hands, through the now flaccid abdominal wall, upon the vault of the head. By this manœuvre the promontory is made to indent the sacral side of the head at a point still higher up, and nearer to the vault; hence the arm of the lever, measured by a line drawn from the base of the skull to this fixed point, will be correspondingly lengthened,—a mechanical advantage not to be overlooked. If now, *without for a moment relaxing, but rather increasing, the original traction-force*, its direction be reversed, and the body of the child be swept backwards upon the coccyx, the neck being also forced downward and backward into the hollow of the sacrum, the sacral side of the child's head becomes deeply bent in, and the pubic side is made to revolve around the promontory and descend with the least expenditure of traction-force. In other words, the head is warped around the promontory. Should the neck be so short, or the pelvis so deep, that the physician cannot well grasp the nape, he may loop a thin muslin sling over it, and draw on the ends, which should meet in front of the chest.

Whenever this mode of traction fails to release the head from the grip of the brim, or the difficulty lies rather in the size of the head than in the narrowness of the pelvis, I have, on several occasions, succeeded by a pump-handle movement. Made with a steady and an unremitting traction, it will cause each side of the wedge-shaped head to descend alternately. The range of oscillation should extend from the axis of the outlet anteriorly, to very firm pressure on the coccyx posteriorly. With a sharply-defined promontory this up-and-down movement

does not ordinarily succeed, unless the parietal bone has been broken in or greatly depressed as a whole, and not simply indented. Otherwise, the sacral side of the head is held fast, and the pubic side will then librate around the indented, and therefore fixed, point, merely rising and falling, without any onward progress whatever. But in the breech-cases ordinarily met with, in which the sacro-vertebral angle is usually round and knobby, or in those of large heads and average pelves, this pump-handle movement will be found a very precious expedient.

To either method supra-pubic propulsion by the hands of an assistant is a very important adjuvant. It can with safety be made to any extent, and will greatly lessen the amount of traction-force necessary for delivery. As soon as the head has passed the brim, which it does usually with a distinct jerk, flexion and rotation spontaneously take place, and the line of traction must then be changed to that of the outlet. When finally the head is about to clear the bony canal, the body of the child should be raised up in front of the pubes, according to Hodge's plan, and traction made directly upward in a line at a right angle to the mother's body. This final method of traction augments the flexion of the head, and obviates the necessity for putting two fingers into the child's mouth. When the face presses on the soft parts, two fingers passed up into the rectum will still further increase the flexion of the head, and will serve to protect the perineum from injury.

To sum up, then,—the mechanism of a forced delivery consists in propulsion and three movements of unremitting traction. That failing, in propulsion and a pump-handle movement of traction. Of the three movements of traction, the first is made in the axis of the outlet, the second in the axis of the inlet, and the third in the curve of the obstetric canal.

I have been somewhat minute in these directions, because physicians, by continuing the backward traction long after the head has slipped past the brim, sometimes fail to deliver, and because by this faulty traction the chin hooks over the perineum and badly tears it. One word with regard to the perineum: In head-first labors due time can generally be given for its complete dilatation; but in head-last labors even seconds are too precious to be thus wasted. If, therefore, air cannot be communicated to the mouth or to the nostrils of the child through the gutter made by the physician's fingers, he must disregard the consequences to the mother and forcibly deliver by traction, or, this failing, by the forceps. Should the perineum be torn, as it usually will be in a fat primipara, a perfect union of the wound may be confidently looked for from the immediate introduction of wire sutures.

In both the previously-given modes of extraction I prefer the woman to be on her back, with her hips brought slightly over the edge of the bedstead, and each knee supported by an assistant. My reasons for this position in preference to the lateral one are: that the propulsive pressure is then more efficiently given either by the hands of a third assistant, or by the free hands of the two assistants; that since the power thus applied resolves itself into a question of weight and not of strength, very few physicians, while bending forward in front of the woman thus placed, can exert a steady force of one hundred pounds upon the neck of the child; and, finally, that the upper hand of the physician can then force the neck into the hollow of the sacrum and thus make the line of traction somewhat behind the axis of the superior strait.

In conclusion, let me say that, since adjusting all sentimental considerations for the child's neck to a sliding scale of pounds avoirdupois, and since adopting the foregoing methods of delivery, I approach a case of head-last labor with an assurance of success such as I never had before, and such as I wish to impart to those who lose heart the moment the examining finger discovers that the head is not the presenting part.

A CASE OF BASILAR MENINGITIS IN WHICH THE OPHTHALMOSCOPE APPEARANCES (CHOKED DISK) WERE OBSERVED ONE MONTH BEFORE DEATH.

WITH THE ACCOUNT OF THE POST-MORTEM EXAMINATION.

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THROUGH the courtesy of Dr. T. E. Satterthwaite, Curator of the Presbyterian Hospital, and Dr. James L. Banks, Attending Physician, I am enabled to report a case which derives its chief interest from the careful post-mortem examination of the brain that was made by Dr. S. On the 24th of November, 1874, I was asked to see a young girl in Cherry Street, who was said to be suffering from pain in the eyes and ears. I found an emaciated but tolerably strong girl of about fourteen years of age, sitting up, but complaining of headache and of occasional pains through her ears and eyes. Her hearing was good, and her mental powers were unimpaired. She could read the type of a book of rather coarse type, so that at a rough estimate, having no test type with me, I concluded that her vision was at least one-half, $\frac{20}{40}$, or perhaps even $\frac{20}{30}$. On examining the bottom of the eyes with the ophthalmoscope, I found the media perfectly clear, the choroid and retina sound, but the optic papilla swelled, the veins large and tortuous, and the arteries small. Both nerve-entrances were in the same condition. There was no intolerance of light. The appetite was impaired, and the general nutrition was also in a poor state. The patient had an occasional chill, and had been gradually getting into the present state for about a month. The drum-heads showed no morbid change.

My diagnosis, made in the presence of Mr. Kreekorian, student of medicine, was descending optic neuritis from basilar meningitis. She was placed upon bromide of potassium, quinine, beef-tea, milk, etc.

The patient was living in a very small room, surrounded by all the other members of the family, some five or six in number, and she was therefore

removed to the Presbyterian Hospital, where she died on the 20th of December, or about twenty-four days after I made the ophthalmoscopic examination. The general symptoms and course of her case after admission to the Hospital, as furnished me by the Attending Physician, Dr. James L. Banks, were as follows:

S. H., æt. 13; born in Syria; single; no occupation; father Armenian and mother Greek. Good family history; says she was perfectly well until two months ago, when she began to have severe paroxysms of headache and vomiting, which rapidly increased in frequency and intensity. During past month, according to the statement of her friends, she has had epileptiform convulsions, strabismus, and attacks of blindness. In spite of the administration of bromide of potassium, the convulsions have been more frequent and more severe of late.

On admission, patient is fairly nourished; slightly anæmic. Dark hair and eyes, and fair skin. Complains of very severe pain in head, chiefly in frontal region and in back of neck. Says that the pain is quite constant, but is much more severe at some times than at others. The light hurts her eyes, and blue glasses are worn as a protection. Says that sometimes her vision becomes very "dim;" at present it appears to be good. Pulse and temperature normal; skin and muscular system natural; pupils widely dilated, but responsive to light. Appetite very poor. Bowels costive. Patient feels able to be up and dressed during the day.

There was no special change in the condition of the patient until the 5th of December, when she had nine epileptiform convulsions during the morning, in quick succession, and slight spasms almost continuously during the afternoon and night. On the 6th she was quiet and partially unconscious, moaning and complaining of headache in frontal region. Occasionally strabismus was noticed. Bowels constipated. The following day, the 7th, she sat up and dressed, and said she felt much better, complaining of no pain. This continued until the 9th, when she had again great pain in head, and vomited frequently, but there was no convulsion until 12 P.M. of same day.

Morning of the 10th she was quiet, but unconscious. On the 11th and 12th had frequent spasms, great pain in head and neck, and unconscious part of time. Paralysis of lower extremities then appeared, with incontinence of urine and fæces; pupils were unequally dilated.

No change in condition on 13th and 14th. On 15th, spasms less frequent; pulse is losing strength, and she is emaciating rapidly.

On the 16th, no spasms; complained of headache; began to refuse nourishment, having taken it well hitherto; pulse very weak. It was then observed that patient was blind, and partially deaf. She continued in this condition until her death, three days after.

The treatment consisted in the administration of bromide of potassium, five grains every four hours, increased to five grains every three hours, and combined with iod. pot., etc., etc.; blister (cantharides) to back of neck; ice-bag applied to head (also to spine, without good effect, and discontinued). Mag. sol. morph., ℥ iv hypodermically, to control restlessness and spasm, was given twice. Bowels were moved by enemata. Extra diet, milk, beef-tea, etc., etc., was ordered, and, although there was some apparent improvement at first under this treatment, the patient gradually lost strength, emaciating rapidly, and she died very quietly at 3 P.M. on the 19th of December.

Autopsy, made by Dr. Satterthwaite. Body greatly emaciated; the brain and upper portion of cord were only parts removed. Meninges of brain and cord congested, and of bright-red color; dura mater studded with numerous small, yellowish-white points; over convexity of brain, strong adhesions at a few points between dura and pia mater; a faint opaque gelatinous deposit was seen in pia mater at some points. At the base there was a large area of softening, extending from pons Varolii to anterior border of optic commissure and from one middle cerebral lobe to the other, and reaching deep into substance of brain, on the right side extending to and embracing a portion of the inner wall of the right ventricle; superficially it had a gelatinous look, while internally it was more or less mottled with yellowish and red spots, and there were small portions of broken and plugged vessels seen in it; above the left optic tract was a small, soft, deep-red clot, about the size of a small hazel-nut, surrounded by a softened mass, and there was another smaller extravasation, not coagulated, above and opposite the right crus. In the interior of left lateral ventricle some of the softened material had a creamy look. Under the microscope, this material was found to be made up in part of lymphoid cells and red corpuscles, but chiefly of large exudation-cells and granular matter. Some of these collections of cells had undergone degeneration, so that they were only recognized by their outline. The ventricles were dilated, and contained fluid in large quantities. It was clear; but the floors of the ventricles to the posterior cornua were covered with a thin layer of coagulated blood. The vessels at the base and in the fissure of Sylvius were empty for the most part, and miliary granulations about them could not be detected with certainty. The brain-substance was remarkably pale.

I am sorry that the post-mortem examination does not include an account of the condition of the optic nerves and eyeball; but Dr. Satterthwaite found it impracticable to make an examination except of the brain. Yet the results of this investigation, in connection with the clinical history and ophthalmoscopic examination, render the case, as it seems to me, an interesting contribution to the literature of descending neuritis optica.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF DR. LOUIS A. DUHRING.

Reported by ARTHUR VAN HARLINGEN, M.D.

SYCOSIS NON-PARASITICA.

THIS man presents an eruption on the right cheek, extending over an area of several square inches, involving, as you observe, not only the skin, but the follicles of the hair: it is, in fact, a case of sycosis. But there are two kinds of sycosis: one depending upon the presence of a vegetable fungus, and known as parasitic sycosis; the other a simple inflammation involving the hair-follicles, and known as non-parasitic sycosis. Which have we here? This is an important question, for our plan of treatment will be of one kind or another according to the diagnosis arrived at. Our patient tells us that the appearance of the affection has, since it first showed itself, become materially changed. At first the eruption was moist; now, on the contrary, it is dry, red, and scaly in most places, while a few pustules may be observed around the hair-follicles. Were this parasitic sycosis, the appearances presented would be quite different; great disfigurement would

exist, nodules and tubercles of various sizes, perhaps even as large as a cherry, would be observed under the skin, this form of disease going deeply into the tissues.

Our patient tells us that the eruption itches and burns severely at times; and this is another fact which would incline us to doubt its parasitic origin, for parasitic sycosis never gives rise to so great a degree of itching and burning as we have here.

We have here, then, a case of non-parasitic sycosis, the disease having commenced, probably, as an eczema, and having subsequently penetrated the hair-sacs and glands, giving rise to inflammation in these parts, and terminating in the condition we see before us.

The treatment of these cases is manifold: sometimes one remedy will answer the purpose; at another time this will fail, and we must have recourse to a different one. The first thing to do, invariably, however, is to have the patient's beard kept closely shaved. To this the patient will probably at first object, on account of the pain to which this operation gives rise; but after the first day or so it becomes much less painful, sometimes not at all so. Shaving is an absolute necessity in sycosis, both for the sake of cleanliness and because we cannot otherwise apply the local means necessary with any degree of thoroughness. The hairs, too, when allowed to grow, act as irritants. After having been cleanly shaved, our patient will have applied to all the affected parts of the skin the following ointment:

℞ Sulphuris loti, ʒss;
Adipis, ʒi.—M.

The diseased patch is to be carefully cleansed with castile soap and warm water, and, after drying, the ointment is to be thoroughly worked in with the finger. This procedure is to be repeated morning and evening.

As regards diagnosis, one word more may be said. In a certain number of cases this may be very difficult and obscure if we rely upon the naked-eye appearances alone. Fortunately, we have in the microscope an aid which will enable us to decide in every instance. The presence or absence of the characteristic fungus found in the epidermis and in the hair-shaft itself will decide the question without doubt.

TRANSLATIONS.

On Micro-Organisms in Suppurations—their Influence upon the Course of Wounds, and the Means of Opposing their Development.—At a recent meeting of the Académie des Sciences, M. P. Bouloumie read a note upon this subject, from which we condense the following:

1. Pus from any collection not in direct or indirect connection with a wound never contains micro-organisms, with the exception of certain minute brilliantly refractive points often joined two and two. Pus from a wound, whatever its nature and whatever the dressing employed, has always afforded micro-organisms, usually endowed with movements which become more appreciable when the pus is diluted. In pus from an abscess in the vicinity of a wound, the number and variety of organic forms observed depend upon whether the abscess is in a tissue continuous with or only in contiguity to that in which the wound is situated. In the first case the forms are numerous and varied, in the latter few and simple.

The movements of these organisms, which are hardly perceptible at the moment the abscess is opened, become much more so after exposure of the pus to air, and especially if the latter is diluted. The elements observed in pus, besides the pus-globules, the white and the red blood-globules, are almost constantly the same; they are composed of mobile and immobile single granules, chaplets of the same, etc., and are described at length by M. Bouloumie. All these elements are surrounded by an amorphous, fatty, granular substance escaped from the pus in process of destruction.

2. No dressing will absolutely prevent the presence of micro-organisms in wounds, although certain applications may modify their number and activity. Alcohol and glycerin appear to be the dressings which repress most powerfully the vitality and mobility of micro-organisms. Lister's dressings do not prevent their appearance in the products of suppuration.

Raw-cotton dressing, made with care, the wound having been cleansed with dilute alcohol and covered immediately with lint soaked in glycerin, permits the development of organisms only in such small quantities as to lead one to believe them contained in the dressing at the time of its application.

3. The micro-organisms above described do not exercise an equally morbific influence upon the wound under all circumstances, or upon the individual. They may exist in the products of suppuration without hindering cicatrization or injuring the patient's health. They may, however, at times invade the parts in the vicinity of a wound, and give rise to abscess in the neighborhood. They may, by means of the lymphatic or venous system, invade a healthy organism without doing anything more than provoking reaction and eliminative dejections. They may invade an organism already profoundly affected, and may develop septicæmia; first by their toxic action, then by the virulent action of the elements disorganized by them.

4. Among the agents used for dressings, it is necessary to choose those which exercise a favorable action upon cicatrization, and which, at the same time, are opposed to the vitality and proliferation of the micro-organisms. From this point of view, alcohol and glycerin ought to have the preference. They arrest the life of those vibriones which require water, by depriving them of their water of constitution.

5. It is by proper dressing, very often, that the first step in infection is prevented, and it is by an intelligent hygiene that the chances of generalization on the part of the morbific ferments may be diminished, should they escape beyond the limits of the wound.—Abstract from *Bull. Gén. de Thérap.*, January 30, 1875. X.

Paralysis of the Cervical Sympathetic.—According to Dr. Nicati (*L'Abeille Méd.*, No. 3, 1875; from *Archives Méd. Belges*), this affection is quite frequent, although it generally passes unnoticed on account of its usual innocence. A slight drooping of the eyelid, accompanied by contraction of the pupil as well as some coloration and perspiration of the face, is all that may be noticed.

What has been called hyperidrosis, lateral facial ephidrosis, anidrosis, is nothing more than a paralysis of the sympathetic nerve. M. Nicati distinguishes three periods in paralysis of the sympathetic: 1, *a period of prodromata, or artificial irritation*, the symptoms of which are similar to those produced by artificial irritation of the cervical sympathetic in animals; of this period he gives, as an example, a case of exophthalmic goitre; 2, *a first period of paralysis*, of which the symptoms are those observed in animals after section of the cervical filaments: contraction of the pupil, injection of the vessels of the corresponding side of the head, augmentation of heat in the same parts and as far as the axilla, frequent sweats; 3, *a third period*, characterized by atrophy of the diseased parts, loss of flesh in the paralyzed localities, and want of perspiration in the same. All these various phenomena, which may show themselves singly or together in paralysis of the cervical sympathetic, have been studied with care, and are detailed at some length by Dr. Nicati in his communication. X.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MARCH 20, 1875.

EDITORIAL.

PHILANTHROPY RUN MAD.

THE active and virulent assaults in London upon vivisection and those who practise it have already been alluded to in these columns; but the cool impudence of a recent act of the Royal Society for the Protection of Animals seems to us to exceed anything that we have seen or read of for a long time. It must be remembered that this Society has already taken the ground that vivisection is criminal, and that all performers of it ought to be as vigorously prosecuted as those who starve or drive to death cattle or horses, or who in Hogarthian methods put to shame and suffering the smaller domestic animals. Having taken this position, the Society now sends a circular to all the medical societies, medical schools, hospitals, etc., of Great Britain, stating, "It has been alleged that experiments upon animals are practised under the care or patronage of these various schools, societies, etc.," and asking that "a committee of the Society for their protection may be present as mute spectators on the occasion alluded to when operations on living animals are appointed to be performed at your institution, in order that we may report the proceedings of them." We are sorry to have to state that some of the medical societies have returned respectful though negative answers to these petitions. It would have been better not to notice them.

London is not the only place where ultra, bigoted philanthropists exist: we have the same class in this community. Long ago our own society in the female branch embarrassed vivisection in this city by preventing the use of the condemned dogs of the pound. Of course, by this senseless procedure they did not stop scientific investigations, but only made them more troublesome and expensive, and thereby really increased the probabilities of cruelty being practised: when a dog costs five dollars instead of fifty cents, there is evidently a constant temptation to make the single animal go as far as possible.

The moral of the famous answer of Sir Astley Cooper to the Committee of the House of Parliament, "If you do not allow us the bodies of convicts and paupers, we will take those of members of Parliament," is perfectly applicable to the present case. The reputed action of the chief of the Paris police in the case of Magendie was a much wiser one than that of our ladies of wealth. The story, as we have heard it, is that one of Magendie's dogs having escaped in a very severely wounded condition went home to his master, who happened to hold the office aforesaid. The next day every policeman was on the *qui vive* to discover who had dared to commit the dastardly outrage, and by-and-by the crime was traced to the luckless vivisector. He, however, so explained the matter to the chief of the police, and was so successful in undoing what he had done, that not only was the dog restored to health, but his master was converted into an ally, so that ever afterwards the city pound was open to Magendie.

Scientific investigation has continued to go on in the face of papal bulls and religious persecution unto the shedding of blood; much less shall it be stopped by any band of sentimental philanthropists, who bear to the real lover of his kind about the same relation that an old childless woman hugging her lap-dog does to the mother with the babe in her arms.

The less of useful work any one has to do in the world, the more time is left for making trouble; and the false assertions of Mr. Bergh and his kindred may in this country—where public opinion is so powerful—make a great deal of trouble, if we do not take care to put the real facts of the case before the people. It has been with great pleasure, therefore, that we have recently read very just editorials and articles upon the subject in the *Nation* and other of our leading popular journals and papers. Much, of course, can be done in the way of influencing public opinion by means of the press; but even more can be accomplished by every physician making, by personal efforts, the little circle that looks up to him understand the merits of the case. The

little brochure of Prof. Dalton* is an excellent one to loan to friends and patients; but the following condensed statement from the *British Medical Journal* will be perhaps more useful for the refreshment of the memory of the physician himself.

WHAT HAS VIVISECTION DONE FOR MEDICAL SCIENCE?

A. *It has succeeded in advancing our Knowledge of Physiology, by—*

1. Discovery of the two classes of nerves, sensory and motor, by Sir Charles Bell.

2. Discovery of the functions (motor) of the *portio dura* of the seventh pair, by Sir Charles Bell. Previously to this discovery, the *portio dura* was often cut by surgeons for the cure of neuralgia!

3. Discovery of the functions of the anterior and posterior roots of the spinal nerves, by Sir Charles Bell.

4. Discovery of the functions of the anterior and posterior columns of the spinal cord, by Brown-Séquard and others.

5. Discovery of one of the functions of the cerebellum in co-ordinating muscular movements, by Flourens and others.

6. Discovery of the functions of the gray matter on the surface of the cerebral hemispheres as connected with sensation and volition, by Flourens, Magendie, etc.

7. Discovery of the motor functions of the gray matter covering certain convolutions in the anterior part of the cerebral hemispheres, by Hitzig, Fritch, Ferrier, Gudden, and Nothnagel.

8. Demonstration of the circulation of the blood, by Harvey.

9. Measurement of the static force of the heart, and discovery of other hydraulic phenomena of the circulation, by Stephen Hales, Ludwig, etc.

10. Discovery that atmospheric air is necessary to the maintenance of life, and that, when stupefied by its withdrawal, animals may be resuscitated by readmitting it, by Robert Boyle, in 1670.

11. Discovery that atmospheric air by continued breathing becomes vitiated and unfit for respiration, by Boyle.

12. Discovery that the air was not only vitiated but also diminished in volume by the respiration of animals, by Mayou, in 1674.

13. Discovery of the relation, as regards respiration, between animal and vegetable life, by Priestley, in 1722.

14. Great discoveries by Lavoisier on the physiology of respiration, from 1775 to 1780; namely, that respiration acts only on the respirable portion of the air, or oxygen, while the remainder, nitrogen, is entirely passive in the process; secondly, that when animals are confined in a limited space, they die when they have absorbed, or converted into carbonic acid, the greater part of the oxygen, and so reduced the air to the state of an irrespirable gas.

15. Numerous facts in the physiology of digestion, observed by Blondlot, Schwann, Bernard, Lehmann, and others, by experiments on animals.

16. The discovery of the functions of the lacteals, by Colin, Bernard, Ludwig, and others.

17. The discovery of the functions of the eighth pair of nerves in relation to deglutition, phonation, respiration, and cardiac action, by John Reid and others.

18. The discovery of the functions of the sympathetic system of nerves, by Pourfour du Petit, in 1727, Dupuy, in 1816, Brachet, in 1837, John Reid, and Brown-Séquard.

19. The discovery of the phenomena of diastaltic or reflex action, by Marshall Hall.

20. The discovery of the action of light on the retina, by Homgren, Dewar, and McKendrick.

21. The discovery of the glycogenic function of the liver, by Bernard, Macdonnell, Pavy, etc.

22. The discoveries of the whole series of facts in the domain of electro-physiology, by Matteucci, Du Bois-Reymond, Pflüger, and many others. These discoveries have important practical bearings.

B. *In aiding Medicine and Surgery.*

1. The transfusion of blood, and introduction directly into blood of medicines; first proposed by Robert Boyle, in 1665. In 1665 Lower transfused blood from vessels of one animal into those of another. First done in human being by Dennis and Emmerets, in France, in 1666. Blundell's celebrated experiments on animals in 1818. Since done by many others,—Dumas, Milne-Edwards, Dieffenbach, Bischoff, Doubleday, Brigham, Waller, Burton Brown, Klett, Lane, Levy, Bérard, etc.

2. Artificial respiration. Vesalius showed that by blowing up the lungs with air, after the chest was opened, stoppage of the heart's action might be delayed for some time. Hook, in 1664, first demonstrated the possibility of artificial respiration. Brodie, Hope, Le Gallois, Wilson Philip, Marshall Hall, and Silvester have practised it on human beings.

3. The causes of the cardiac sounds have been determined entirely by vivisectional experiments.

4. Phenomena of the circulation within the cranium examined experimentally by Kelly, Burrows, Reid, etc.

5. Hunter's operation for aneurism was first demonstrated and tried on living animals. This he did in 1785. He also found, by experiments on animals, that in many cases the arterial coats were diseased immediately above the aneurism, and that consequently it was necessary, in order to avoid secondary hemorrhage, to place the ligature higher up.

6. The office of the periosteum in regeneration of bone has been demonstrated experimentally by Du Hamel in 1740, Hunter in 1772, Syme in 1837, Wagner in 1853, and Leopold Ollier in 1858. The practical importance of these observations is recognized by all surgeons who have had much to do with the diseases of bones and joints.

7. The researches of Redfern into disease of cartilage.

* Experimentation on Animals. New York, F. W. Christern, 1875.

8. The researches of Stricker, Cohnheim, Von Recklinghausen, and many others, on inflammation, more especially of cornea and serous membranes.

9. Without vivisection experiments, we would know very little of the phenomena of inflammation.

10. Experimental inquiries into many zymotic diseases showing occurrence of micrococci.

C. *In advancing Therapeutics, Relief of Pain, etc.*

1. Use of ether.

2. Use of chloroform.

3. Chloral discovered experimentally by Liebreich.

4. The *actions of all remedies* are only definitely ascertained by experiments on animals.

5. Action of Calabar bean, by Fraser.

6. Antagonism between active substances and the study of antidotes,—many observers.

The above are simply examples which have readily occurred to the mind. To record all the facts given to physiology by experiments on animals would simply be to write the history of the science. Therapeutics is yet in its infancy; but nearly all the facts definitely known regarding the actions of remedies have been gained by experiments on animals. To stop experiments on animals would as surely arrest the progress of physiology, pathology, and therapeutics, as an edict preventing the chemist from the use of the retort, test-tube, acids, and alkalies, would arrest the progress of chemistry.

CORRESPONDENCE.

BALTIMORE, March 2, 1875.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—For once, Baltimore has a genuine sensation, and the medical profession, as well as upper and lower Ten-dom, is making the most of it. On Tuesday, February 16, Dr. Dausch, assisted by Dr. Mansfield, delivered Mrs. Hahn, 119 Low Street, of *four* daughters. The first child presented by the right shoulder, the other three were footlings. There were two placentæ, three children being attached to one, and one having its own independent supply. The large placenta was about fifteen inches in diameter, and on the fœtal surface had the appearance of three ordinary placentæ, with a cord in the centre of each, placed so as to form a circle, thus, , but the maternal surface showed no marks of division, and they could not be separated without laceration. The labor occupied about an hour and a half, and was free from pain. Ergot was given in ʒij doses, but produced no contractions of the uterus.

The mother is small, and in an advanced stage of consumption. This was her third confinement, and both her other children were breech-presentations, and the labor free from pain. The quartet weigh about twenty-four pounds, and the placentæ about four pounds, which gives about thirty pounds as the weight of the uterine contents before delivery. The children are strong and healthy, and the father is doing a good business exhibiting them to the curious, for which he charges an admission-fee. Collections have been made at the hotels and other places for the benefit of this interesting family. It is intimated that a cow would be a very acceptable present.

In remarks on this case at the Medical and Surgical Society, Dr. Morris said that, according to his experience, abnormal presentations did not have the usual phenomena of labor. There is generally a state of quietude; contractions cannot be aroused, and the os dilates unheeded.

At the same meeting of the Society, Dr. Cathell advocated the external application of fluid extract of belladonna to the throat of patients with *scarlatina*. He had used it for eight years, and had never had a case where it was used in which the glands became excessively swollen. It seems to keep the glands in a quiescent state, so that they show no sympathy with the disease. It does not lessen the proportional mortality, and will not reduce the swelling of glands already inflamed. He thought it would be useful in bubo and all local inflammation of glands.

Dr. Lynch thought it important if belladonna will prevent induration or promote resolution of glands; but scarlatina-patients die from the fever-heat or from the intensity of the poison; and frequently the glands do not become involved. The involvement of the glands does not affect the mortality.

Dr. Cathell thought the enlargement of the glands, with the subsequent inflammation and sloughing, might add much to the danger. Prof. Lynch said he had never seen a case in which the danger was so increased.

Dr. Morris said the application of belladonna to swellings was as old as the use of the drug. He has used it for enlarged ovaries, but it is doubtful whether it does good. The mere swelling of the glands is not very alarming or significant, but if it will prevent suppuration it is something gained.

Dr. Friedenwald had used it for years, in combination with camphor, in scarlatina. It seemed beneficial.

Dr. Noel asked what was the value of notched teeth, as described by Hutchinson, as an evidence of syphilis. He has a child under his care whose teeth are notched, and it has nervous symptoms which seem to indicate a tumor of the brain.

Dr. Friedenwald thought the test of very doubtful character, as he had seen such teeth in perfectly healthy children, and it is frequently seen in some forms of interstitial keratitis.

Dr. J. N. Monmonier spoke of the beneficial effects of inhalation in chronic diseases of the larynx and trachea.

Dr. Caldwell said that he had seen very beneficial effects in hooping-cough from the inhalation of belladonna and potass. brom.

At the Baltimore Medical Association, Dr. Chew read an interesting paper on the sounds of the heart. He

thought that experiments proved that the first sound was, like the second, valvular, and that muscular contraction and other causes to which it had been attributed had little or nothing to do with its production.

Dr. Arnold did not agree with him in regard to the conclusiveness of the experiments. At its last meeting this Association elected the following officers for 1875: President, Dr. John Dixon; Vice-Presidents, Drs. J. F. Monmonier, John Morris; Corresponding Secretary, Dr. W. H. Curry; Recording Secretary, Dr. S. K. Merrick; Treasurer, Dr. W. G. Regester; Executive Committee, Drs. Taneyhill, Kemp, and Friedenwald; Committee of Honor, Drs. Murdoch, Eareckson, and Chew. After the election, the annual supper was held.

This is the season in which commencements appear to be epidemic. The Dental College graduated seventeen on the 25th ultimo; the Washington University twenty-six, on the 25th; the College of Physicians and Surgeons thirty-nine, on the 26th; and the University of Maryland forty-nine, on the 1st instant. The Maryland College of Pharmacy will close its session about the 10th, and then the bouquet-trade will be stagnant until the summer. Yours, etc.,

MEDICUS.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

CONVERSATIONAL meeting, Wednesday, January 13, 1875.

VICE-PRESIDENT DR. J. S. ESHLEMAN in the chair.

Placenta prævia.

Dr. J. S. ESHLEMAN related a case of placenta prævia which he had treated in consultation with Dr. I. McGuigan. They met very soon after the first profuse hemorrhage had taken place. The pains were feeble, as is usual in these cases; the flow continued. The patient could not long survive it. The os would scarcely admit the tips of two fingers; it was from an inch and a quarter to an inch and a half in diameter. With Dr. McG.'s consent, he at once applied the forceps and brought the child's head firmly down upon the placenta, compressing it as well as the uterine sinuses, with the effect of instantly arresting the flow of blood.

Feeble pains were now stimulated, and aided by equable traction upon the instruments. The forefinger of the left hand was frequently interposed between the head of the child and the inner surface of the os to graduate the amount of force applied by the forceps held in the other hand, and, aided by the uterine efforts, the os in time began to yield. The uterus descended under the traction somewhat, but less than is often witnessed in natural labor. The case was conducted gently, each effort followed by rest in imitation of natural labor, and terminated in about one hour. There was no perceptible loss of blood, nor was there any concealed or post-partum hemorrhage. The child, though faint, soon rallied. The uterus closed softly upon the placenta, a portion of which remained firmly adherent near the os; the remainder lay protruding from the organ in a somewhat crushed condition, yet there was no hemorrhage. After this condition was carefully examined by Dr. McGuigan also, he proceeded to dislodge the placenta, not by introducing the hand, "prating" or tearing it off, but by external pressure, moulding, and manipulation. Mother and child are doing well.*

He announced that Dr. McGuigan was present and would answer any questions relative to the case. He expressed his obligations to Dr. McG. for the opportunity and support he had given him, that enabled him to corroborate his recommendation to the members of this Society on a former occasion to conduct placenta prævia in the manner here presented.

Delay is attended with danger to the mother and certain death to the child. Turning is acknowledged a hazardous practice to both.

He is not aware that any one but himself has advocated this early introduction of the forceps for the purpose of arresting hemorrhage by compressing the placental and uterine sinuses, and for the purpose of dilating the uterus by means of the child's head as in natural labor.

Dr. WELSH asked where the placenta was attached.

Dr. ESHLEMAN replied, to the side of the uterus in greater part, and over the os in a measure.

Dr. GOODELL asked if the waters (membranes) had been broken.

Dr. ESHLEMAN replied that they had when he arrived. Dr. E. thought when that portion of the placenta covering the os had separated it shrank back so as to admit the membranes at the aperture.

Dr. GOODELL asked Dr. Eshleman to explain how the os was made to admit the forceps.

Dr. ESHLEMAN replied that the diameter of the os was less than the width of the blade of the forceps, but he was able in the absence of pains to elevate the head of the child, when the blade of the forceps would elongate the circular opening into the shape of a button-hole, so as to admit its passage; the second blade, being somewhat narrower, will pass over the shank of the first and enter the same aperture. It is surprising to test how small an opening will admit the forceps, and equally so how large a one is required to admit the hand.

In reply to Dr. Hamilton, he said that ergot was given in the hope that it would favor contraction of the emptied womb, but its effects could not be waited for to aid labor or depended upon to arrest hemorrhage.

Dr. MCGUIGAN, being present, was asked to give his statement of the case reported by Dr. Eshleman.

He stated that the day but one prior to her delivery, he found blood issuing from the vagina. She had lost a previous gestation by hemorrhage. The cervix was three-quarters of an inch in length, and he could feel the fœtal envelopes, but not the placenta. Two days after, he found her bleeding, and in regular labor; the os open three-fourths of an inch, the membranes intact; the placenta could be felt three-fourths of an inch from the external os on the left side, and detached for the space of two inches. The pains were quick and forcible; the head was not engaged. He punctured the membranes when the pains became feeble and slow. The bleeding was not continuous during the two days mentioned.

Dr. ATKINSON said that the occurrence of placenta prævia in two succeeding pregnancies was exceedingly rare. Nor was there any reason to expect such a complication to occur again because a patient had once suffered thus.

In the only case that he had seen in which there was placenta prævia, it was almost completely central. There were no contractions. Ergot appeared to have no effect, although freely administered. He tore through the placenta, put on the forceps, and thus de-

* Recovered subsequently without an untoward symptom.

livered. The child had been dead for some time. The woman did well.

Dr. WILLIAM GOODELL then read a paper on "Head-Last Labors."

Dr. ATKINSON expressed his thanks to Dr. Goodell for this valuable essay. Especially to the young practitioner was this paper of great value. Almost continually we find children sacrificed to the timidity of the physician, who, fresh from the school and the warnings as to meddlesome midwifery, hesitates to do that which would save the infant. He was glad to find that a new school was being founded, in which the student is taught to aid the efforts of nature, rather than to sit by and wait for nature to do all the work.

Although he had repeatedly encountered head-last labors, he had never been compelled to use the forceps, but had always succeeded in speedily delivering by the method mentioned by Dr. Goodell. Supra-pubic pressure by the hand of an intelligent assistant, or, failing that, by the practitioner himself, he had always found of great value in speedily causing the head of the child to emerge.

Dr. BENJAMIN LEE was not sufficiently engaged in obstetric practice to be able to criticise the paper intelligently, but it appeared to him that little could be added to the extremely lucid and exact descriptions both of the mechanism of these presentations and the manipulations necessary to conduct them to a successful result. His object in rising was to confirm the lecturer's statement as to the great amount of traction which the neck would bear with perfect impunity. He was in the habit of treating his cases of spinal curvature, both lateral and angular, by means of modified suspension, the chin and occiput forming the points at which the force was applied, and the line of traction being thus in the direct axis of the spinal column. The head-straps, meeting above the ear, were attached to a steel bow just above the head, at the end of a long rope which passed over a pulley securely fastened to a stout joist. The patient takes hold of the other end of the rope, and draws down until the weight of the body is entirely sustained, the feet being raised from the floor. One-half of the weight was thus borne by the arms, and one-half by the neck; but the amount of traction was increased considerably beyond this from the fact that the patient swung himself often with much force. So far from this application of traction to the neck being unpleasant, it affords, in cases where the weight of the body was causing suffering by grinding pressure upon inflamed and ulcerated vertebræ, a delightful sense of relief, and he was often obliged to restrain his little patients in its excessive or too violent use. He did not hesitate to employ it where the cervical vertebræ were themselves the seat of the disease.

Dr. ESHLEMAN asked Dr. Goodell if he did not find in the living child that the cervical muscles contracted firmly when traction was made upon the head, thus giving important support to the spine.

Dr. GOODELL said he had so found it.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

WEDNESDAY, FEBRUARY 3, 1875.

DR. W. W. KEEN read a paper entitled "Experiments on the Laryngeal Nerves and Muscles of Respiration, etc., in a Criminal Executed by Hanging," of which the following is an abstract.

Dr. George Johnson had expressed the belief that while pressure on one recurrent nerve will cause direct unilateral palsy of the larynx, but not bilateral spasm or palsy, pressure on the vagus involving its afferent fibres may cause both. The reason of this he supposes to be that the nerve-nuclei of both sides are so connected that each possesses bilateral activity. Dr. Mitchell having suggested the probability of a chiasm of the minuter fibres of the recurrents in man, which, though not demonstrated anatomically, might be proved physiologically, the following experiments were undertaken upon a criminal recently executed by hanging. After hanging about half an hour, the body of the criminal was cut down, and immediately examined. The left vagus and recurrent laryngeal were dissected as low down as possible in the neck, and the vocal cords examined while the nerves were excited by electricity. Repeated faradization with weak and strong currents, and galvanization with from four cells up to forty, of the recurrent and also of the vagus, produced decided movements of the left cord only, and none of the right. The wires were applied directly to each nerve, and the irritating action of a tumor simulated as nearly as possible. Careful dissection showed that in all probability none of the fibres of the vagus were injured.

The definite conclusion to be drawn from the experiment is that no chiasm of the inferior laryngeal nerves exists. No reflex motion was observed in the larynx, although the absence of this may have been due to violence done the parts by hanging.

Experiments upon the muscles of respiration were then undertaken. The left phrenic, having been insulated, was excited as in the previous experiments, but without result; no movements whatever of the chest were produced, nor was greater success obtained by one wire applied to the nerve while the border of the diaphragm was followed with a sponge, nor when both sponges were applied to the diaphragm.

The intercostals were then examined. Having been exposed from the median line to the line of the axilla, the interrupted current was applied to the inter-cartilaginous portion of the internal intercostals by means of small sponges, when it was found that they all raised the cartilage below them. The external intercostals were then faradized, when the upper rib was pulled down very markedly, while the lower one was just perceptibly raised; the movement increased from the first to the seventh, the last four not being examined. These experiments seemed to point to the conclusion that the internal intercostals are inspirators, and the external expirators.

The muscles of the face still retained their electro-muscular contractility; but one was examined carefully, the pyramidalis nasi, which appeared as a result of the electrical excitation to act as the direct antagonist of the central portion of the occipito-frontal. Dr. Keen pointed out, in conclusion, the important results which this new method of investigation—*the faradization of the muscles on the recently dead*—promises to yield.

Dr. WHARTON SINKLER exhibited an office-battery made by Otto Flemming, No. 15 North Ninth Street, Philadelphia. The arrangement is a very convenient one, and enables the operator to use either the induced or the galvanic current at pleasure. The cost of the apparatus, complete, is $180.

REMOVAL OF A NÆVUS OF THE UPPER LID BY MEANS OF A LIGATURE.—M. Talko records the case of a child aged ten months, who suffered from a telangiectasis of the upper lid one-third of an inch in diameter, a rapid cure of which was effected by passing two needles at right angles through the base, and tying a silk thread tightly around the base. No swelling of the lids followed; slight suppuration took place in the collapsed tumor which fell off in the course of a week, a clean wound being left. There was no puckering or retraction of the eyelid.—*Practitioner;* from *Centralblatt für Chirurgie*, No. 32, 1874.

SELECTIONS.

HILDEBRANDT ON THE TREATMENT OF UTERINE FIBROMA AND MYOMA BY HYPODERMIC INJECTIONS OF ERGOTIN.—Professor Hildebrandt, in the *Beiträge zur Geburtshülfe und Gynaekologie*, Band iii. Heft 2, 1874, remarks that recent literature has been lately very full of repeated trials of hypodermic injections of ergotin for the treatment of uterine tumors. As a rule, the result has not been favorable. Failure seems to have arisen chiefly from three causes: the extreme pain endured by the patient; phlegmonous inflammations and abscesses; and, in one case, poisoning. The strongest argument that has been used against it is, that those who have the hardihood to go through all the suffering have derived no benefit whatever. As to Dr. Hildebrandt himself, his experience has differed in no wise from that previously reported (*Berliner Klinische Wochenschrift*, No. 25, 1872), and he is perfectly satisfied with the results, which go to substantiate his previous assertions.

First objection: *Pain.*—The solution of ergotin now employed has 13 parts of water to 3 of the extract ergot, and 2 of glycerin. It causes less pain than when the quantities of water and glycerin were equal. The glycerin is added to prevent the formation of fungi. With this preparation, the pain is not greater than that usually experienced with the injection of quinine. The first applications are the most painful; the region of Poupart's ligament is the most sensitive spot, and that of the umbilicus the least so. There are two distinct varieties of pain; the first an immediate one, the effect of irritation to the cellular tissue, lasting a couple of hours; the second coming on later, and continuing for about an equal time, arising from contraction of the uterus. The latter kind of pain is essential to the success of the operation; the more severe it is, the more likely the desired effect will be obtained. Wernich's solution produces this pain also. The more deeply the needle is driven, the less intense is the first variety of pain.

Second objection: *Phlegmonous inflammation and abscesses.* Dr. Hildebrandt has never seen these accidents follow his own injections, and only twice where his assistants had operated; and this out of over one thousand hypodermic injections. These complications are believed to depend upon not inserting the needle deep enough; he passes the canula at least two-thirds of its depth, and does not mind injecting the fluid into the muscular tissues. The skin and its mediate superficial layer of cellular tissue should be thoroughly cleared. The experience of Langenbeck, Awater, and Löhlein coincides with his own, both as to this method of diminishing the pain, and obviating the occurrence of abscesses.

Kleinwächter's case of *poisoning* arose from the solution being too strong, three and a half parts nearly of ergotin to two of water and two of glycerin. The symptoms were analogous to those of morphia-poisoning: "deep stupor, reduction of temperature, pulse 140."

Against the negative results of other investigators he places the positive benefits obtained, as observed by Hermanides, Eggel, Bengelsdorf, Cl. Mayer, Keating, Hening, and Wernich; the latter having seen the treatment check hemorrhage in the majority of cases even after five or six injections, where it had been used solely for that object. Scanzoni writes him privately under date of March 30, 1874, that he is, as a whole, completely satisfied with his results, although he cannot flatter himself with ever having seen the entire disappearance of the tumor. He has used it in seventeen cases of large and small fibromata, the injections being persevered in for months. In one instance, a tumor midway between the navel and pubes diminished to the size of an orange after forty injections. In a case of flooding from fibroma, it was arrested after the seventh injection. Dr. Burow writes privately to say that in one case a fibroid of the size of a child's head was reduced in three months to the size of an orange, with complete cessation of menorrhagia.

Dr. Hildebrandt now gives sixteen fresh cases, which occurred either in his own practice or under his immediate supervision, and divides them into three classes: —1. Removal of the symptoms, with reduction of the tumor; 2. Marked improvement of the symptoms, with slight reduction of the tumor (these were partly his own and partly others); 3. No effect either on the symptoms or on the tumors.

I. *Removal of the Symptoms, with Reduction of the Tumor.*—In the first division there are five cases, in women respectively of the ages of forty-three, thirty-four, twenty-eight (single), thirty-seven, and thirty-six years. In the first case, the tumor reached to the umbilicus; the uterus was moderately thickened and elastic. At the end of fifty injections, during two months, the tumor had receded to about the size of a three-months' gravid uterus. In the second case, the fibroma, about the size of a man's fist, was felt to be in the right side of the abdomen. With fifty-five injections, during three months, the tumor had ceased to be felt through the abdominal parietes. The small subperitoneal tumors which were noted before the operation were in no wise affected, except being more prominently felt. In the third case, that of a single woman, the tumor was nearly up to the navel; it was elastic, and distinctly demarcated from the surrounding organs. Twenty-six injections, during two months, diminished the tumor so much that its apex could be felt on a level with the pubes. At the request of the woman, the treatment was not continued. In the fourth case, the uterus was deeper than normal in the pelvis; the infra-vaginal portion of the cervix was not altered; the uterus was about the size of an apple. The uterine sound passed in 9½ centimetres (about 3¾ inches). There was profuse menorrhagia. In less than two months, after sixty-two injections, the uterine sound passed in 7½ centimetres (about 3 inches), and the body of the uterus was about the usual size of a multipara. In the fifth case, the uterus was universally enlarged to about the size of a small apple, with a fibroma in the wall on the right side; menstruation was excessive. With fifty-five injections, at intervals of two or three days, only half of the amount of solution being employed at times, on account of the pain, the uterus remained the same; but the tumor entirely disappeared. The tumor might have been only an exudation.

II. *Marked Improvement of the Symptoms, with Slight Reduction of the Tumor.*—Case 1. A woman (age not given) had menorrhagia of two and a half years' standing. The fundus of the uterus was about three fingerbreadths above the pubes; a large fibroma was diagnosed on the right side of the uterus, extending into the cavity; it was firm and smooth on the surface. Sixty injections were made during nearly three months. At the end of the time the uterus was found to be on a level with the pubes, the menstruation had become normal, and the woman was able to move about again.

Case 2. The age of this patient is not given. The catamenia were regular as to time, but excessive in quantity and clotty. The uterus was as large as at the fourth month of gestation, anteflexed, with a subperitoneal fibroma as big as an apple in the left and upper side; an intra-uterine fibroma was also believed to exist. The uterus was firmly elastic. Fifteen injections were given, one every second day; the treatment could not be borne longer, on account of the suffering induced. Menstruation became normal.

Case 3. The patient, aged thirty-seven, had menor-

rhagia, with regularity, however, as to time. There were two uterine tumors; one subperitoneal, on the left side; the other, a larger one, intramural, in the posterior wall. Both were diagnosed as fibromyomata. Daily injections were used for a month, with an interval once of four days, from some phlegmonous inflammation showing itself around the seat of puncture. The next period was better, the tumor was slightly less, and perceptibly so; it was more readily felt, and more distinctly demarcated from its uterine parenchyma.

Case 4. In this woman, aged thirty-five, there had been excessive menorrhagia for the last two years. A large fibromyoma was distinctly defined, growing in the anterior wall, expanding the uterus above the pubes to about the size of the fifth month of gestation, at the same time descending deeply into the pelvis. Forty-seven injections were made in three months. The menses, which previously appeared every fourteen days, now had an interval of twenty-one and twenty-three days; their quantity was more normal, but they were still profuse. The uterus was a little smaller.

Case 5. In this patient, thirty-four years old, the catamenia appeared for the last twelve months every three weeks; they were excessive, with expulsion of clots. A fibroma about the size of a child's fist was diagnosed in the left wall of the uterus. Forty injections were made in three months. The fibroma became one-third smaller, the menses ceased, and pregnancy occurred, which pursued a normal course.

Case 6. A single woman, age not stated, had extremely profuse, painful menorrhagia every fourteen days, lasting eight or nine days. She had continued in this state for the last six years, and was extremely blanched. The uterus was anteflexed, broad, and extending a little above the pubes; the tumor had a firm consistence, with a smooth surface. Twenty-two injections were made during nearly two months. She became better in every respect; the catamenia appeared with an interval of twenty-nine days, continuing seven days. The injections were continued with good effect on the hemorrhage and benefit to the patient, without, however, producing any perceptible diminution of the tumor. This was in 1872. During the winter of 1873–74, in spite of the injections, the hemorrhage became freer, and for the time profuse. What was the exact cause of this return of hemorrhage the writer cannot say, but he thinks that the tumor (submucous?) might have descended, become seized in its downward course, which occasioned a temporary increase of bleeding.

Case 7. The patient was single, aged forty-seven. The uterus was the size of a man's head; menorrhagia was excessive, and she had leucorrhœa. Twelve injections were made. The menstruation was moderated, the periods being two days shorter. The tumor was unchanged; the fluor albus remained the same.

Case 8. This patient was aged thirty-five, with profuse menorrhagia every three weeks, of eight or ten days' duration. The fundus was felt midway between the navel and pubes; it was globular and firmly elastic. The cervix was patulous as far as the internal os. Twenty-five injections were made. The next period lasted nine days, but was moderate in quantity. The general condition was benefited. The uterus was two finger-breadths above the pubes.

Case 9. This woman was thirty-eight years of age; she had suffered from excessive menorrhagia for seven years. The last two years the menses had appeared every fourteen days, and there was a continuous intermediate sanguineous discharge. A slightly elastic tumor of the size of a fist was felt in the wall of the anteflexed uterus. After fourteen injections, menstruation became normal, for the first time for years. The tumor was somewhat smaller. Notwithstanding every precaution, phlegmon occurred twice in this case.

III. *No Effect on Symptoms or on Tumor.*—Case 1. The patient, thirty-seven years old, had a painful tumor on the right side of the abdomen. There was no leucorrhœa. Two tumors were found in the uterus; one, of the size of an apple, in the anterior vault of the vagina, connected with the anterior wall of the uterus; a second, somewhat smaller, in form like a normal uterus, seated on the right side of the walls of the uterus. Daily injections were made for fifteen days without producing the slightest alteration on the tumor. Case 2. The uterus was of the size of a man's head, with even surface and of hard consistence. There was profuse menorrhagia, with faintings. In Case 3, an old submucous fibroma was diagnosed; the patient derived not the slightest benefit from thirty injections.

Dr. Hildebrandt has again seen the first of his former published cases, after a lapse of two years. She came into the hospital with a five-months' child at the breast. He examined her, and found the uterus of normal size, without a trace of any abnormalities. In Case 5 of the same series the benefit continues, but the uterus is no smaller.

He believes it is essential, in order to obtain a successful result, that the tumor should be compressed by protracted contractions of the uterine walls. As, in neoplasms of other parts of the body, absorption can be produced by prolonged instrumental compression, so also may fibromyomata be reduced in size by similar compression by a tetanically contracted uterus. Whether the action of the ergot in causing contraction of the uterus and thereby compressing the tumor is the only way in which it operates, remains doubtful. In some cases, he is under the undoubted impression that the tumors soften before they lessen. If this softening were always present, it might be explained by supposing that the tumors, through an excess of blood in the veins, and a diminution in the arteries, as seen by direct experiment of Wernich, were gradually disintegrated. He protests against having ever maintained or believed that every fibroma of the uterus was capable of dispersion by ergotin injections.

The consistence of the tumor is all-important. An old impoverished fibroma, consisting chiefly of thickened connective tissue, is as unlikely to be absorbed as a calcareous mass. If the ergot increase the hemorrhage and discharge, it is probable that it does so by the uterine contractions causing a narrowing of the vessels. This is generally found to be the case in aged persons, the reverse, however, with the young; with the latter the tumors are vascular and loose, with muscular fibres. The most favorable cases are those which resemble in form and consistence a tense elastic cyst, which was the case with his first published case.

Energetic uterine contractions are essential to success; hence the uterus must be healthy and capable of contraction. Thin muscular walls are less fitted, as seen in some subperitoneal and submucous fibromata of large size, where the uterine walls are much expanded. In the intermediate-sized tumors, there is more risk of indurations and exudations into the parenchyma than there is from thinning. The cases the least suited are those where there have been some chronic parenchymatous metritis or perimetritis and parametritis. These conditions should be first cured before attempting injection of ergot. Lastly, the most favorable position is immediately under the mucous membrane,—the muscular layer that covers it being perfect. In the middle of the uterine walls it is less favorable, but least of all when subperitoneal. In the latter kind of cases he has at times observed the tumor pushed out, and thereby rendered more prominent, by injections.

In order to promote rapid absorption of fibromyomata, the following conditions are essential:

1. Their seat should be submucous.

2. Their consistence should be of a tense, elastic, muscular character.

3. The uterine walls should be healthy, contractile, not thinned by stretching, not unyielding through exudations, and the uterus free from perimetritis and parametritis.

He adds that whoever thinks he will cure the symptoms and remove the tumors by a few injections greatly errs. At least from twenty to fifty or more are absolutely necessary to obtain favorable results.—W. C. GRIGG, M.D., in *London Med. Record.*

GLEANINGS FROM OUR EXCHANGES.

SYPHILITIC ULCERATION OF THE ŒSOPHAGUS—DIAGNOSIS BY AUSCULTATION (HAMBURGER'S METHOD).—Dr. F. W. Godon gives an account of a case occurring under his care, in which the patient had suffered from dysphagia for six weeks. He had suffered some fifteen years previously from constitutional syphilis. There was no evidence of lung-disease, and he had no cough and no expectoration.

Examination of the throat and pharynx revealed nothing abnormal. The larynx also was found to be healthy, and there was no obstruction at the orifice of the œsophagus. Only fluids could be swallowed.

The patient was made to drink a mouthful of water, and while he was swallowing it Dr. Godon auscultated the œsophagus by Hamburger's method (detailed in the *Lancet* for May 30, 1874). By this means it was found that the water on reaching a point opposite the fifth dorsal vertebra was regurgitated with a loud splash; the fluid, however, was not thrown up into the mouth, but, at the expiration of a few seconds, passed down beyond the point of obstruction, and finally reached the stomach. By means of auscultation, a trickling or dropping could be distinctly heard during the passage of the liquid over the site of stricture, and the act of swallowing occupied some five minutes for its completion. Examination with a No. 8 bougie showed a tight stricture at the junction of the middle and lower thirds of the canal.

The case was diagnosed as one of syphilitic ulceration of the mucous membrane of the œsophagus, and the patient was treated with iodide of potassium and ice, under which he rapidly improved. At the end of a month the disease had yielded so far that a No. 8 bougie could be passed without difficulty.

Notwithstanding this, a certain amount of thickening had taken place, and the patient was directed to continue the iodide at least two months, and was discharged with a guarded prognosis. Dr. Godon lays great stress upon the advantages of Hamburger's method in the diagnosis of these obscure affections.—*Pacific Med. and Surg. Jour.*, February, 1875.

A SIMPLE PROCESS FOR ESTIMATING UREA IN URINE (*The Practitioner*, February, 1875).—Mr. W. J. Russel describes a method for the estimation of urea, based upon a chemical reaction long known, but not hitherto available, on account of the elaborate calculations required.

Urea is decomposed by hypochlorous or hypobromous acid into water, carbonic acid, and nitrogen. If then the carbonic acid be absorbed by caustic soda, the gas evolved will be nitrogen alone, the amount of which will of course be an index of the urea. The apparatus used by Mr. Russel consists of a mixing-tube of such a form that the ingredients (hypobromate of soda, caustic soda, and the urine) can be introduced separately and mixed *in situ*.

This tube is inserted into the bottom of a water-bath of peculiar construction, figured by the author, and when the reaction commences the gas evolved is collected in a glass tube, so ingeniously graduated that the divisions are numbered to give the percentage of urea at a glance. The estimation is thus reduced to a matter of minutes, and the apparatus is certainly worthy of trial.

METRO-CEREBRAL DISEASE.—Dr. Percy Boulton, in a note to the *Obstet. Jour. of Great Britain and Ireland*, February, 1875, calls attention to the reflex disorders brought about by diseases of the uterus, the difficulty and the importance of properly distinguishing them. Headache, neuralgia, depression of spirits, hysteria, melancholy, epilepsy, pulmonic phthisis, cardiac irritation, dyspepsia, constipation, diarrhœa, flatulence, enuresis, are mentioned as a few of these reflex affections, and a case is related concerning a lady in whom the most threatening symptoms of melancholia were entirely dissipated by the cure of a diseased uterus. The inference drawn is that vaginal examinations should be made in many of the diseases of married women.

NOTES AND QUERIES.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—Among the "Notes and Queries" to the *Philadelphia Medical Times* of February 27, 1875, is a note by Isaac Smith, Jr., M.D., headed "Criticism Corrected," in which certain charges of unfairness are laid to the door of "*our critic*;" and which, for his own sake, *our critic* feels bound to answer. They are—

1. That the article is not quoted "*candidly and honestly*," or "*in full*."

2. That what is quoted is done in a slovenly manner; and,—

3. The text seems to have been "*criticised*" without due regard to its "*subject matter*," either in "*letter*" or "*import*."

1. In this criticism, all I claim to do is to "copy the doctor's case in full." That I have done. The "twenty-three and a fraction of lines" were "omitted," as they had nothing to do with the case. They relate to Dr. S.'s speculations on it, and were therefore left out, although I confess they were exceedingly ingenious and amusing, as, indeed, the entire record is.

2. Whatever of "*slovenliness*" attaches to the part quoted is due, let me say, to the recorder, not to the critic; indeed, this quality might be said to pertain to the entire article. The history was quoted *verbatim*.

3. The case was criticised with reference to the "letter" of the "subject matter;" its "import" I supposed was contained in the "letter." To avoid even unintentional injustice, if Dr. Smith will kindly inform me of the true reading of the "subject matter," as regards both its "letter" and "import," I will, if wrong, gladly acknowledge my error.

"By the assistance of time," says Dr. Smith, "which is the great developer of all that is valuable in science, literature, and arts, as well as men, I shall also enumerate other syphilitic lesions which were evolved during the treatment of the case, and which were inadvertently omitted in my article."

Dear doctor, do not wait for "time" in giving the symptoms already "evolved;" give them now,—everything bearing on the case will be of value in explaining it,—and let future lesions, whatever they may be, be left to the "great developer."

FRED'K R. STURGIS, M.D.

NEW YORK, March 4, 1875.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

IN the last number of your journal, March 13, an article appears by Dr. J M. Boisnot on "A Case of Purpura Hæmorrhagica Requiring Transfusion," which requires some notice from me. On Sunday night, June 21, 1874, Dr. Boisnot wrote me as follows: "I am attending a case which will most certainly require transfusion, or something nearly as energetic, on account of the loss of blood from purpura hæmorrhagica. Can you come with the bearer? if not, please send word when. Bring apparatus and appliance for plugging nares."

I was out of the city, and, on my return the next morning, received another urgent message. With my private assistant, Dr. W. C. Cox, and the late J. T. Hopper, a student of medicine, and with the necessary apparatus, we reached Mr. Hirsh's at noon. The case was indeed a desperate one. After explaining the dangerous condition of the little patient, as well as the possible risks attendant upon the operation upon a child so young, transfusion was agreed upon. I then bled the father, defibrinated the blood, and, with difficulty, opened the vein at the bend of the elbow in the right arm. I then readily, and very successfully, injected three syringefuls of blood; a violent chill with serious syncope followed. Very threatening symptoms continued for a considerable time, and slowly passed off. On going to see the child the following day, I met Dr. Fricke, and asked him to go in and see with me this interesting case. I have stated the above rather fully, perhaps, for the reason that, although so intimately connected with the case, I am, curiously enough, not even referred to, much less given any credit which may be due me for having performed an operation which certainly saved the child's life.

The operation from the beginning to the end was performed by myself; while I relied upon and received the principal assistance from Dr. Cox, who had been with me in all of my other transfusion cases. Dr. Boisnot, as well as the others present, aided me when called upon.

I would care very little about this, however, and would not have taken up so much of your valuable space, were it not that prior to and subsequent to the publication of my paper on "Transfusion," in the *American Journal of the Medical Sciences*, July, 1874, I answered inquiries from medical friends here and abroad respecting my cases and the apparatus used; and this last case occurring just at that time, and in a subject so very young,—probably the youngest on record,—led me to give, in several instances, the details of the case. It now appears either that my statements then given are without the least foundation, or that Dr. Boisnot has failed to present a complete history of the case, for he merely states that "transfusion of ℥iv of blood from the father yielded a result beyond our most sanguine expectations." To whom "our" refers, the reader is not informed.

Very respectfully,

T. G. Morton.

Philadelphia, 1421 Chestnut Street, March 13, 1875.

Dr. T. G. Morton, 1421 Chestnut Street.

Dear Sir,—I have received a copy of the current number of the *Medical Times*, containing an account of an operation of transfusion of blood performed on my son. I am much surprised that no mention is made of your name in connection with the case, as you personally performed the operation.

Respectfully,

Leopold Hirsh.

Philadelphia, 1318 Marshall Street, March 13, 1875.

To the Editor of the Philadelphia Medical Times:

Dear Sir,—If I understand correctly the statement made in the "Therapeutic Notes," and also in the article on "The Use of Cold in Fever," in the number for February 27 of your valuable journal, referring to G. Mayer's paper in the *Jahrbuch für Kinderkrankheiten*, vii. 4, both articles contain a slight inaccuracy as regards the mode of administering the bath in scarlet fever. Your journal has it that Dr. Mayer "has been placing the child in a bath of from 93° F. to 73° F. for ten minutes, whenever the temperature rises above 102° F.;" while Dr. Mayer places the child in a bath of from 93° F to 88° F., and cools it gradually to from 77° F. to 73° F., whenever the temperature of the body exceeds 102° F.

In reading the description of Leube's ice mattresses, it occurred to me that it would be much easier and much more convenient to send for the undertaker to bring one of his patent corpse-preservers and place the patient in that to cool him off. He could have one or two blankets, and the window could be opened which is usually found at the head of these modern contrivances, and so enable him to get a sufficiency of that commodity, oxygen. By adding salt to the ice in the ice-compartment, any degree of cold desired might be produced, and the patient defervesced any number of degrees F.

This method would be particularly applicable in large hospitals, where the attending physician could order John to place the patient in the apparatus and put a thermometer in his axilla, and leave him there till the mercury reached 100° F. or 98° F.

I take it for granted that every physician of any experience is sufficiently familiar with this apparatus, so that it is not necessary to give a description of it; and I think few will deny that it would be effective.

M.

Germantown, March 9, 1875.

To the Editor of the Philadelphia Medical Times:

Dear Sir,—In an article on Cold in Fever, you state that the only mention yet of cold baths being used in inflammation of the lungs is in an article by G. Mayer, in *Schmidt's Jahrbücher*, p. 347. But in the last vol., No. 5, of Von Ziemssen's Handbuch der Speciellen Pathologie und Therapie, just published, the first article is on pneumonia, by Prof. Theo. Jürgensen, and his sole treatment in that disease is by cold baths, and also quinia, of which he gives thirty grains at a dose.

He also uses wine before and after the cold bath. The whole number he treated with cold baths and quinia wine is two hundred,—one hundred and fourteen males, eighty-six females; died, twenty-four,—and of these twenty-four, all were complicated. Not one died of acute pneumonia, but eight of delirium tremens, two of abortion, two of pertussis, four of peritonitis chronica, and the other of pericarditis. He says that his death-rate may speak for itself.

One of his maxims is, Never forget that the worst enemy the heart has is the high temperature; and this is certain to be reduced by the use of cold baths.

Truly, yours,

C. H. Smith.

Kenton, Ohio, March 7, 1875.

To the Editor of the Philadelphia Medical Times:

Dear Sir,—Under "Therapeutic Notes" in your number of February 20, you speak of "A New Poultice," and omit an important point in so doing.

The poultice Lelièvre is prepared by saturating cotton-wadding with a very mucilaginous decoction of carrageen, pressing and drying it. This then admits of being "cut into thin plates" and used as your article describes, and possesses all the advantages therein enumerated.

I have made some of it at the request of Dr. Hewson, and I believe that it is now made and in use at the Pennsylvania Hospital, giving great satisfaction.

Very truly, yours,

George J. McKelway.

We have received a letter from one of our Western correspondents, making the gravest charges against H. V. Sweringen, of Fort Wayne, Indiana, a paper by whom was published in the issue of the *Philadelphia Medical Times* for February 27. At this distance we are, of course, unable to give an authoritative opinion in regard to these charges, but assert, without hesitation, that Mr. Sweringen has been guilty of the gravest breach of professional etiquette, not to say common honesty, in sending to a distant medical journal a medical article, and then having it published in a local newspaper, and himself and newspaper afterwards editorially puffed because the *Times* had copied his article from the newspaper. The editor of the *Times*, not being omniscient, cannot always detect the disguises of Satan, but can only point out the true nature when the cloven foot appears.

To the Editor of the Philadelphia Medical Times:

Dear Sir,—In my article on organic matter in drinking-water in your last issue, I suppose no person on second thought would *extemporaneously* prepare Nessler's reagent and use potassium iodide by the *pint;* yet if *part* were substituted, so as to read, "one part of salt to twenty parts of water," it would be at least more practicable.

Very truly, yours,

Charles McIntire, Jr.

Philadelphia, March 9, 1875.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

The next conversational meeting will be held at the hall of the College of Physicians, Wednesday, March 24, at 8 o'clock P.M.

Dr. Joseph Leidy will lecture on the "Anatomy of the Ear."

The medical profession in the city are cordially invited.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MARCH 9, 1875, TO MARCH 15, 1875, INCLUSIVE.

O'Reilly, R. M., Assistant-Surgeon.—Granted leave of absence for twenty days. S. O. 28, Department of the Platte, March 5, 1875.

Munn, C. E., Assistant-Surgeon.—To report in person to the President of the Army Medical Board, New York City, for examination for promotion, and, upon its completion, to return to his proper station. S. O. 39, A. G. O., March 8, 1875.